

### **REMARKS**

The Office Action mailed October 17, 2006 has been carefully considered and the following response prepared. Claims 7-16 are pending in the application. Claims 7 and 8 have been canceled without prejudice. New claims 17-22 have been added. New claim 17 is directed to a method of inhibiting the growth of pathogenic bacteria or the replication of herpes or influenza viruses in a patient. Support for new claim 17 can be found throughout the specification and in particular at page 1, line 31. Claims 9-16 have been amended as necessary to depend from claim 17. New claims 18-22 are directed to the method of claim 17 and further define the pathogenic bacteria. Support for new claims 18-22 can be found throughout the specification and in particular at page 4, lines 11-15 and Example 5. No new matter has been added.

At page 2 of the Office Action, claims 7-16 were rejected under 35 USC 112, second paragraph as being indefinite. Specifically, the Examiner indicated that the phrase "growth of an infectious disease" renders claim 7 indefinite. Further, the Examiner indicated that claim 7 is indefinite because it is unclear to whom or what the composition is being administered.

Claim 7 has been canceled without prejudice and this rejection is now moot. New claim 17, which replaces claim 7, is directed to inhibiting the growth of pathogenic bacteria or the replication of herpes or influenza viruses in a patient and states that the alpha-glycosidically linked starch polysaccharide derivative of Formula I is administered to a patient. Withdrawal of this section 112, second paragraph rejection is respectfully requested.

At pages 2-5 of the Office Action, the Examiner rejected claims 7-16 under 35 USC 112, first paragraph as not enabled. The Examiner stated that the specification, while being enabling for the treatment or inhibition of specific bacterial Gram-positive and Gram-negative bacterial strains and the inhibition of herpes virus replication in GMK cells, does not reasonably provide enablement for treating infectious diseases.

Applicants traverse this rejection. Claims 7 and 8 have been canceled without prejudice. New claim 17 is directed to methods of inhibiting the growth of pathogenic bacteria or the replication of herpes or influenza viruses in a patient comprising the step of administering to the patient an amount of an alpha-glycosidically linked starch polysaccharide derivative represented by general formula I, as defined in claim 17, effective to inhibit the growth of the pathogenic bacteria or the replication of herpes virus or influenza virus. Claims 9-16 have been amended as necessary to depend from claim 17. New claims 18-22 are directed to the method of claim 17 and further define the pathogenic bacteria.

Patent applicants must disclose their invention with sufficient detail so that persons skilled in the pertinent art can make and use the claimed invention without undue experimentation. *Chiron Corp. v. Genentech, Inc.*, 363 F.3d 1247 (Fed. Cir. 2004). Enablement of patent claims is determined by reference to the disclosures of the patent itself and the knowledge of persons skilled in the pertinent art at the time the patent application was filed.

Applicants respectfully submit that the specification enables the methods of inhibiting the growth of pathogenic bacteria or the replication of herpes or influenza viruses as presently claimed. As discussed at pages 2-3 of the specification, compounds containing quaternary ammonium groups are known to have antibacterial and antifungal properties. Moreover, there is some thought in the art that the quaternary ammonium group is responsible for the antibacterial and antifungal activity. Example 5 at pages 12-13 of the specification shows that polysaccharide derivatives of Formula I, which contain quaternary ammonium groups, are active against Gram-positive and Gram negative bacteria. Example 6 at pages 13-14 of the specification shows the antiviral activity of the compounds in regard to herpes simplex virus type 1. The declaration of inventor Dr. Thomas Heinze, submitted herewith, shows the antiviral effect on influenza A virus of alpha-glycosidically linked starch polysaccharide derivatives of Formula I as defined in the application. The disclosures of the specification, when considered with the knowledge of persons skilled in the art, provide reasonable assurance that the polysaccharide derivatives of Formula I possess antibacterial and antiviral activity. Persons skilled in the art can thus make and use the claimed invention without undue experimentation. Withdrawal of this section 112, first paragraph rejection is respectfully requested.


Application No. 10/500,807  
Amendment dated April 17, 2007  
Reply to Office Action of October 17, 2006

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In view of the above, applicant believes the pending application is in condition for allowance. Reconsideration of the application is respectfully requested and an early Notice of Allowance is earnestly solicited.

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Respectfully submitted,

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